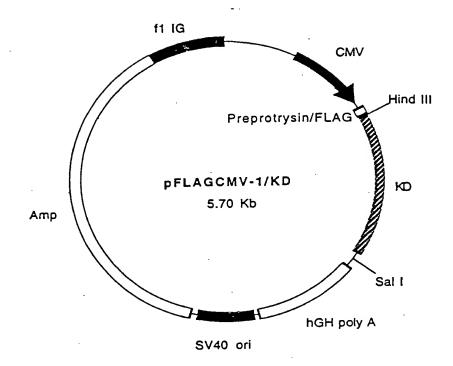


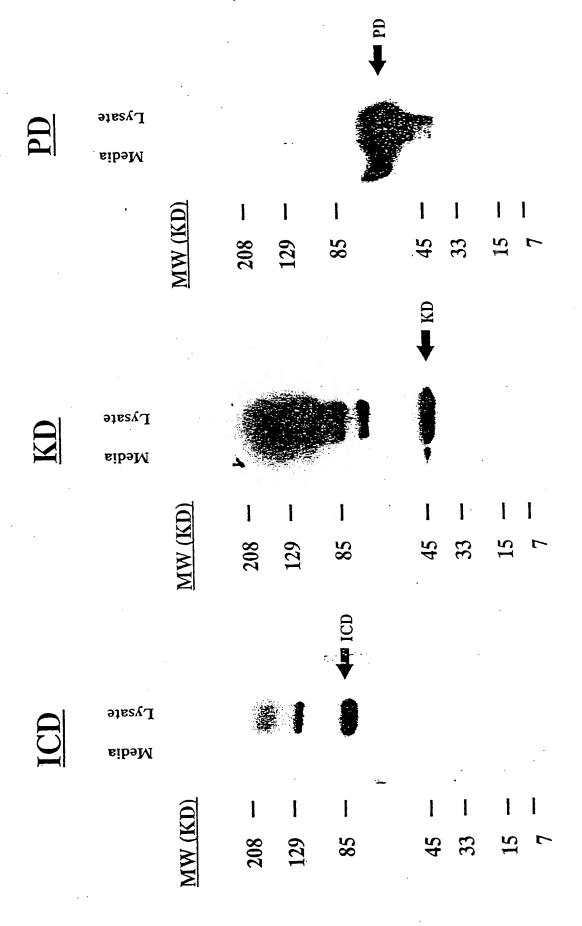
Fig. 1



f1 IG CMV Hind III Preprotrysin/FLAG pFLAGCMV-1/PD 5.70 Kb Amp Sal I hGH poly A SV40 ori

Fig. 3

Fig. 2



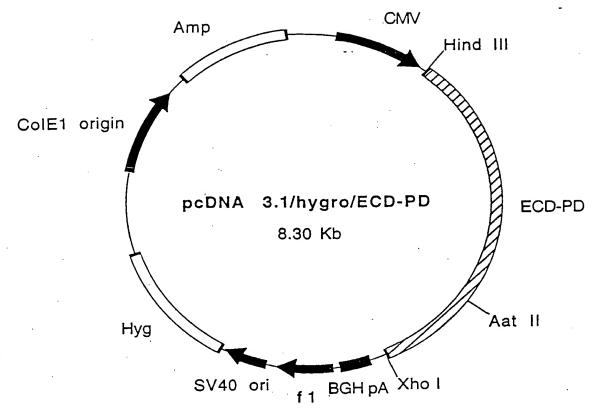


Fig. 5

pcDNA3.1hyg/ECD-PD expression

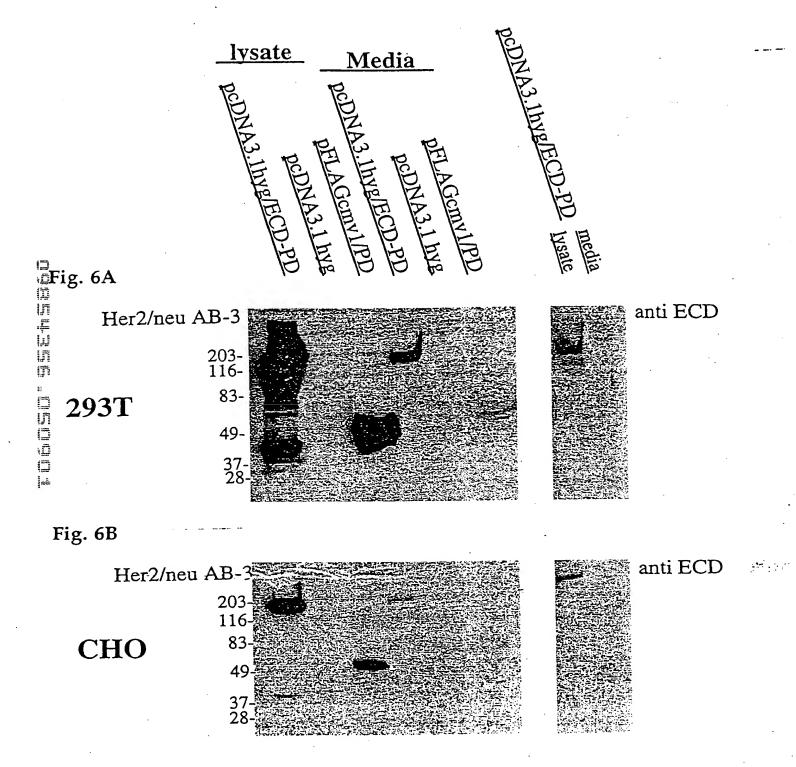


Fig. 7 (SEQ ID NO: 1)

	10	20	
Ala Ser Thr Gin Val Cys T	hr Gly Thr Asp Met Lys Leu	Ala Leu Leu Pro Pro Gly Ala Arg Leu Pro Ala Ser Pro Glu Gin Val Val Gin Gly Asn Leu	20 40 60
Glu Leu Thr Tyr Leu Pro T	hr Asn Ala Ser Leu Ser Phe Na His Asn Gln Val Arg Gln	Leu Gin Asp IIe Gin Giu Vai Vai Pro Leu Gin Arg Leu Arg	80 100
	110	120	· · · · · · · · · · · · · · · · · · ·
Asp Pro Leu Asn Asn Thr T Gin Leu Arg Ser Leu Thr G Leu Lys Tyr Gin Asp Thr I	hr Pro Val Thr Gly Ala Ser Glu Ile Leu Lys Gly Gly Val le Leu Trp Lys Asp Ile Phe	Leu Ala Val Leu Asp Asn Gly Pro Gly Gly Leu Arg Glu Leu Leu Ile Gln Arg Asn Pro Gln His Lys Asn Asn Gln Leu Ala Pro Cys Ser Pro Met Cys Lys 220	120 140 160 180 200
Ala Gly Gly Cys Ala Arg C Ala Ala Gly Cys Thr Gly P Ser Gly IIe Cys Glu Leu H	ys Lys Gly Pro Leu Pro Thr Pro Lys His Ser Asp Cys Leu His Cys Pro Ala Leu Val Thr	Ser Leu Thr Arg Thr Val Cys Asp Cys Cys His Glu Gln Cys Ala Cys Leu His Phe Asn His Tyr Asn Thr Asp Thr Phe Glu Ser Cys Val Thr Ala Cys Pro 320	220 240 260 280 300
	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
Glu Kal Thr Ala Glu Asp G Val Cys Tyr Gly Leu Gly M Ile Gln Glu Phe Ala Gly C	Gly Thr Gln Arg Cys Glu Lys let Glu His Leu Arg Glu Val Cys Lys Lys Ile Phe Gly Ser	Val Cys Pro Leu His Asn Gln Cys Ser Lys Pro Cys Ala Arg Arg Ala Val Thr Ser Ala Asn Leu Ala Phe Leu Pro Glu Ser Pro Glu Gln Leu Gln Val Phe 420	320 340 360 380 400
Glu The Leu Glu Glu Ile T	The Giv Tve Leu Tve Ile Ser	Ala Trp Pro Asp Ser Leu Pro	420
Asp Leu Ser Val Phe Gin A Tyr Ser Leu Thr Leu Gin G Leu Gly Ser Gly Leu Ala L	Asn Leu Gin Val IIe Arg Giy Giy Leu Giy IIe Ser Trp Leu Leu IIe His His Asn Thr His	Arg Ile Leu His Asn Gly Ala Gly Leu Arg Ser Leu Arg Glu Leu Cys Phe Val His Thr Val Leu His Thr Ala Asn Arg Pro	440 460 480 500
•	510	520	
Trp Gly Pro Gly Pro Thr (Val Glu Glu Cys Arg Val L Leu Pro Cys His Pro Glu (Gin Cys Vai Asn Cys Ser Gin Leu Gin Gly Leu Pro Arg Giu Cys Gin Pro Gin Asn Giy Ser	Leu Cys Ala Arg Gly His Cys Phe Leu Arg Gly Gin Glu Cys Tyr Val Asn Ala Arg His Cys Val Thr Cys Phe Gly Pro Glu Pro Phe Cys Val Ala Arg Cys	520 540 560 580 600

Fig. 7 (SEQ ID NO: 1)

	610	620
Gly Ala Cys Gin Pro Cys Pro Ile Gly Cys Pro Ala Glu Gin Arg Ala Ile Leu Leu Val Val Val Leu Gly	Ser Tyr Met Pro IIe Trp Lys Phe Pro Asp Glie Asn Cys Thr His Ser Cys Val Asp Leu Asp As a Ser Pro Leu Thr Ser IIe IIe Ser Ala Val Val Val Val Phe Gly IIe Leu IIe Lys Arg Arg Glig Arg Leu Leu Gln Glu Thr Glu Leu Val Glu Pro 710	p Lys 640 al Gly 660 n Gln 680
Arg Lys Val Lys Val Leu Gly Ser Pro Asp Gly Glu Asn Val Lys Ile Pro Lys Ala Asn Lys Glu Ile Leu	n Gin Ala Gin Met Arg IIe Leu Lys Giu Thr Gi r Giy Ala Phe Giy Thr Vai Tyr Lys Giy IIe Tr e Pro Vai Ala IIe Lys Vai Leu Arg Giu Asn Th u Asp Giu Ala Tyr Vai Met Ala Giy Vai Giy Se e Cys Leu Thr Ser Thr Vai Gin Leu Vai Thr Gi 810	p 11e - 740 or Ser - 760 or Pro - 780
Asp Leu Leu Asn Trp Cys Met Gln Leu Vol His Arg Asp Leu Ala Ala Lia Thr Asp Phe Gly Leu Ala Arg	o His Val Arg Glu Asn Arg Gly Arg Leu Gly Sen Ile Ala Lys Gly Met Ser Tyr Leu Glu Asp Val Arg Asn Val Leu Val Lys Ser Pro Asn His Val Leu Leu Asp Ile Asp Glu Thr Glu Tyr His Albo Met Ala Leu Glu Ser Ile Leu Arg Arg Arg Ph	ai Arg 840 · ai Lys 860 a Asp 880
Lys Pro Tyr Asp Gly Ile Pro Alo Leu Pro Gin Pro Pro Ile Cys Thr Ile Asp Ser Glu Cys Arg Pro Arg	r Gly Val Thr Val Trp Glu Leu Met Thr Phe Gl a Arg Glu IIe Pro Asp Leu Leu Glu Lys Gly Gl r IIe Asp Val Tyr Met IIe Met Val Lys Cys Tr g Phe Arg Glu Leu Val Ser Glu Phe Ser Arg Me I IIe Gln Asn Glu Asp Leu Gly Pro Ala Ser Pr 1010	u Arg 940 p Met 960 et Ala 980
Glu Glu Tyr Leu Val Pro Gln Gln Gly Met Val His His Arg His Arg Leu Gly Leu Glu Pro Ser Glu Glu	u Leu Giu Asp Asp Asp Met Giy Asp Leu Val As n Giy Phe Phe Cys Pro Asp Pro Ala Pro Giy Al g Ser Ser Ser Thr Arg Ser Giy Giy Giy Asp Le u Giu Ala Pro Arg Ser Pro Leu Ala Pro Ser Gi y Asp Leu Giy Met Giy Ala Ala Lys Giy Leu Gi 1110	a Gly 1040 eu Thr 1060 u Gly 1080
Pro Ser Glu Thr Asp Gly Tyr Val Asn Gln Pro Asp Val Arg Pro Gin Arg Pro Ala Gly Ala Thr Leu Glu	o Leu Gin Arg Tyr Ser Giu Asp Pro Thr Vai Pr il Ala Pro Leu Thr Cys Ser Pro Gin Pro Giu Ty n Pro Pro Ser Pro Arg Giu Gly Pro Leu Pro Al u Arg Pro Lys Thr Leu Ser Pro Giy Lys Asn Gi y Giy Ala Vai Giu Asn Pro Giu Tyr Leu Thr Pr 1210	ia Ala 1160 Iy Val 1180
Gly Gly Ala Ala Pro Gin Pro His Tyr Tyr Trp Asp Gin Asp Pro Pro Pro Thr Ala Glu Asn Pro Glu Tyr	s Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp As o Glu Arg Gly Ala Pro Pro Ser Thr Phe Lys G r Leu Gly Leu Asp Val Pro Val	in Leu 1220 By Thr 1240 257

Fig. 8 (SEQ ID NO: 2)

	10	20
Met Glu Leu Ala Ala Trp Cys Arg Trp Ala Gly Thr Gln Vai Cys Thr Gly Thr	· Asp Met Lys Leu Arg Leu Pro Ala Se	r Pro Glu 40
Thr His Leu Asp Met Leu Arg His Leu Glu Leu Thr Tyr Yai Pro Ala Ash Ala	:Tyr Gin Gly Cys Gin Val Val Gin Gi	y Asn Leu 60
Gin Gly Tyr Met Lou lie Ala His Asn	Gin Val Lys Arg Val Pro Leu Gin Ar	
	110	120
Ile Val Arg Gly Thr Gin Leu Phe Glu	Asp Lys Tyr Ala Leu Ala Val Leu As	p Asn Arg 120
Asp Pro Gin Asp Asn Val Ala Ala Ser Leu Gin Leu Arg Ser Leu Thr Glu Ile	· Thr Pro Gly Arg Thr Pro Glu Gly Le	eu Arg Glu 140
Gin Teu Cys Tyr Gin Asp Met Val Leu	ı Trp Lys Asp Val Phe Arg Lys Asn As	in Gin Leu 180
Ala Fro Val Asp Ile Asp Thr Asn Arg	Ser Arg Ala Cys Pro Pro Cys Ala Pr	o Ala Cys 200
	210	220
Lys Asp Asn His Cys Trp Gly Glu Ser	Pro Glu Asp Cys Gln Ile Leu Thr Gl	y Thr Ile 220
Cys Thr Ser Gly Cys Ala Arg Cys Lys Cys Ala Ala Gly Cys Thr Gly Pro Lys	s Gly Arg Leu Pro Thr Asp Cys Cys Hi s His Sec Asp Cys Leu Ald Cys Leu Hi	s Glu Gln 240 s Phe Asn 260
His Ser Gly He Cys Glu Leu His Cys	s Pro Ala Leu Val Thr Tyr Asn Thr As	p Thr Phe 280
Glu Ser Met His Asn Pro Glu Gly Arg	g Tyr Thr Phe Gly Ala Ser Cys Val Th	nr Thr Cys 300
	310	320
Pro yr Asn Tyr Leu Ser Thr Glu Val	Gly Ser Cys Thr Leu Val Cys Pro Pr	o Asn Asn 320
Gin felu Val Thr Ala Giu Asp Gly Thr	- Gin Arg Cys Giu Lys Cys Ser Lys Pr : His Leu Arg Giy Ala Arg Ala Ile Th	o Cys Ala 340 or Ser Asp 360
Ash Val Gin Glu Phe Asp Gly Cys Lys	s Lys Ile Phe Gly-Ser Leu Alo Phe Le	eu Pro Glu 380
Ser Phe Asp Gly Asp Pro Ser Ser Gly	/ Ile Ala Pro Leu Arg Pro Glu Gin Le	eu Gin Vai 400
	410	420
Phe Glu Thr Leu Glu Glu Ile Thr Gly	Tyr Leu Tyr Ile Ser Ala Trp Pro As	sp Ser Leu 420
Aro Asp Leu Ser Val Phe Gln Asn Leu	u Arg Ile Ile Arg Gly Arg Ile Leu Hi	is Asp Gly 440
Ala Tyr Ser Leu Inr Leu Gin Giy Leu Cir, Leu Giv Ser Giv Leu Ala Leu Ile	u Gly Ile His Ser Leu Gly Leu Arg Se His Arg Asn Ala His Leu Cys Phe Vo	al His Thr 480
Val Pro Trp Asp Gin Leu Phe Arg Asi	n Pro His Gin Ala Leu Leu His Ser G	ly Asn Arg 500
	510	520
Pro Giu Giu Asp Cys Giy Leu Giu Giy	y Leu Val Cys Asn Ser Leu Cys Ala H	is Gly His 520
Cvs Tro Gly Pro Gly Pro Thr Gln Cy	s Val Asn Cys Ser His Phe Leu Arg G	ly Gin Giu 540
Cys Val Glu Glu Cys Arg Val Irp Ly Cys Lew Pro Cys His Pro Glu Cys Gli	s Gly Leu Pro Arg Glu Tyr Val Ser A n Pro Gln Asn Ser Ser Glu Thr Cys Pl	-(/
Giu Ala Asp Gin Cys Ala Ala Cys Ala	a His Tyr Lys Asp Ser Ser Ser Cys V	al Ala Arg 600

Fig. 8 (SEQ ID NO: 2)

610	620
Cys Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp	Lys Tyr Pro Asp Glu 620
of the tracks of Pro Cys Pro He Ash Cys Ihr His Ser Lys	Val ASP Led ASP Gid 040
A OF CHARLES AND BUT BID AND AND SEC PRO VOLUME PRE 118	He Ald III val val
or various law Phe Lew Vie Lew Vol Val Val Val Gly 11e Lew	He ray wa wa wa
Gin Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu Leu Gin Giu Thr	GIO LEO VOI BIO FIO 700
710	720
	Leu Lys Glu Thr Glu 720
Leu Thr Pro Ser Gly Ala Met Pro Ash Gln Ala Gln Met Arg Ile	Tyr Lys Gly Ile Trp 740
Leu Arg Lys Val Lys Val Leu Gly Ser Gly Ala Phe Gly Thr Val	
lie Pro Asp Gly Glu Asn Val Lys Ile Pro Val Ala Ile Lys Val Ser Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met	
Pro Tyr Val Ser Arg Leu Leu Gly Ile Cys Leu Thr Ser Thr Val	
810	820
	1 1 1 1
Leu Met Pro Tyr Gly Cys Leu Leu Asp His Vol Arg Glu His Arg	Gly Arg Leu Gly Ser 820
Charles I and Asn Tro Cvs Val Gin He Ala Lys Gly Met Ser	lyr bed did was add
And the Vol His Aro Aso Leu Ala Ala Ara Aso Val Leu Val Lys	SEL LLO WRITHIS ACT OFF
The Aso Phe Giv Leu Ala Ara Leu Leu Aso Ile Asp Giv	Int Gid by his Aid 600
Asp Gly Gly Lys Val Pro Ile Lys Trp Met Ala Leu Glu Ser Ile	Led Arg Arg Arg Frie 000
910	920
	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
The His Gin Ser Asp Val Trp Ser Tyr Gly Val The Val Trp Glu	Leu Met Thr Phe Gly 920 Leu Glu Lys Gly Glu 940
Ale We poo Tur Aso Giv II.e Pro Ala Ara Giu II.e Pro Asp Leu	I Led Gld the gla and
Arg Leu Pro Gin Pro Pro Ile Cys Thr Ile Asp Val Tyr Met Ile	11-4 1-1 -/ - 1/
Met ite Asp Ser Glu Cys Arg Pro Arg Phe Arg Glu Leu Val Ser	
Ala Arg Asp Pro Gin Arg Phe Vai Val Ile Gin Asn Giu Asp Leu	1020
1010	1020
Met Asp Ser Thr Phe Tyr Arg Ser Leu Leu Glu Asp Asp Asp Met	Gly Asp Leu Val Asp 1020
Ala Glu Glu Tyr Leu Val Pro Gin Gin Giy Phe Phe Ser Pro Asp	SELO IIII ELO GIÀ IIII 1010
or see the Ala His Ara Ara His Ara Ser Ser Ser Inc Ara Ser	- Gly Gly Gld Led 1000
OL L- CL. P-a Sac Glu Glu Gly Pro Pro Arg Sec Pro) Fer Mid Li O Dei dig 1000
Gly Ala Gly Ser Asp Val Phe Asp Gly Asp Leu Ala Met Gly Val	Thr Lys Gly Leu Gin 1100
1110	1120
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Die Thata Beau 1120
Ser Leu Ser Pro His Asp Leu Ser Pro Leu Gin Arg Tyr Ser Glu	ASP Pro Thr Leu Pro 1120 r Pro Gin Pro Giu Tyr 1140
Law Boo Boo Giv The Aso Giv Tve Val Ala Pro Leu Ala Lys Ser	r Pro Gill 110 did 191
Val Ass Cla Ser Gly Vol Gln Pro Gln Pro Pro Leu Inc Pro Giv	a div Ho realiono
Val Arg Pro Ala Gly Ala Thr Leu Glu Arg Pro Lys Thr Leu Ser	
Val Val Lys Asp Val Phe Ala Phe Gly Gly Ala Val Glu Ash Pro	1220
1210	
Arg Glu Gly Thr Ala Ser Pro Pro His Pro Ser Pro Ala Phe Se	r Pro Ala Phe Asp Asn 1220
Leu Tyr Tyr Trp Asp Gin Asn Ser Ser Glu Gin Gly Pro Pro Pro	o ser Asir the did diy
The Pro The Ala Glu Ash Pro Glu Tyr Leu Gly Leu Asp Val Pro	o Val • • 1258

Fig. 9 (SEQ ID NO: 3)

	10	20 -
Ala Ser Thr Gln Val Cys Thr Gly Thr Thr His Leu Asp Met Leu Arg His Leu Glu Leu Thr Tyr Leu Pro Thr Asn Ala	Gly Leu Leu Leu Ala Leu Leu Pro Pro C Asp Met Lys Leu Arg Leu Pro Ala Ser F Tyr Gln Gly Cys Gln Val Val Gln Gly A Ser Leu Ser Phe Leu Gln Asp Ile Gln K Gln Val Arg Gln Val Pro Leu Gln Arg L	Pro Glu 40 Asn Leu 60 Glu Val 80
Asp Pro Leu Asn Asn Thr Thr Pro Val Gin Leu Arg Ser Leu Thr Giu Ile Leu Leu Cys Tyr Gin Asp Thr Ile Leu Trp	Asp Asn Tyr Ala Leu Ala Val Leu Asp A Thr Gly Ala Ser Pro Gly Gly Leu Arg (Lys Gly Gly Val Leu IIe Gln Arg Asn F Lys Asp IIe Phe His Lys Asn Asn Gln L Arg Ala Cys His Pro Cys Ser Pro Met (210	Glu Leu 140 Pro Gln 160 Leu Ala 180
Ala Gly Gly Cys Ala Arg Cys Lys Gly Ala Ala Gly Cys Thr Gly Pro Lys His Ser Gly Ile Cys Glu Leu His Cys Pro	Glu Asp Cys Gln Ser Leu Thr Arg Thr Pro Leu Pro Thr Asp Cys Cys His Glu Ser Asp Cys Leu Ala Cys Leu His Phe A Ala Leu Val Thr Tyr Asn Thr Asp Thr F Thr Phe Gly Ala Ser Cys Val Thr Ala C	Gin Cys 240 Asn His 260 Phe Giu 280
Glu Yal Thr Ala Glu Asp Gly Thr Gln Val Eys Tyr Gly Leu Gly Met Glu His Ile Ein Glu Phe Ala Gly Cys Lys Lys	Ser Cys Thr Leu Vai Cys Pro Leu His Arg Cys Glu Lys Cys Ser Lys Pro Cys Leu Arg Glu Vai Arg Ala Vai Thr Ser Ile Phe Gly Ser Leu Ala Phe Leu Pro Ala Pro Leu Gin Pro Glu Gin Leu Gin 410	Ala Arg 340 Ala Asn 360 Glu Ser 380
Asp Leu Ser Val Phe Gin Asn Leu Gin Tyr Ser Leu Thr Leu Gin Giy Leu Giy Leu Giy Ser Giy Leu Ala Leu IIe His	Leu Tyr Ile Ser Ala Trp Pro Asp Ser I Val Ile Arg Gly Arg Ile Leu His Asn Ile Ser Trp Leu Gly Leu Arg Ser Leu His Asn Thr His Leu Cys Phe Val His His Gln Ala Leu Leu His Thr Ala Asn 510	Gly, Ala 440 Arg Glu 460 Thr Val 480
Trp Gly Pro Gly Pro Thr Gln Cys Val Val Glu Glu Cys Arg Val Leu Gln Gly Leu Pro Cys His Pro Glu Cys Gln Pro	Ala Cys His Gin Leu Cys Ala Arg Gly Asn Cys Ser Gin Phe Leu Arg Gly Gin Leu Pro Arg Glu Tyr Val Asn Ala Arg Glin Asn Gly Ser Val Thr Cys Phe Gly Tyr Lys Asp Pro Pro Phe Cys Val Ala 610	Glu Cys 540 His Cys 560 Pro Glu 580
Pro Ser Gly Val Lys Pro Asp Leu Ser Gly Ala Cys Gln Pro Cys Pro Ile Asn Gly Cys Pro Ala Glu Gln Arg Ala Ser	Tyr Met Pro Ile Trp Lys Phe Pro Asp Cys Thr His Ser Cys Val Asp Leu Asp	Glu Glu 620

Fig. 10 (SEQ ID NO: 4)

	10	20	
Glu Asp Asp Asp Met Gly	Pro Ala Ser Pro Leu Asp Ser Asp Leu Val Asp Ala Glu Glu D Ala Pro Gly Ala Gly Gly Met V Gly Gly Asp Leu Thr Leu Gly Lu Ala Pro Ser Glu Gly Ala Gly S	Tyr Leu Vai Pro Gin Gin Gly 40)
Phe Phe Cys Pro Asp Pro		Vai His His Arg His Arg Ser 60)
Ser Ser Thr Arg Ser Gly		Leu Giu Pro Ser Glu Glu Glu 80)
Gin Arg Tyr Ser Giu Asp	Lys Gly Leu Gin Ser Leu Pro To Pro Thr Vai Pro Leu Pro Ser Co Gin Pro Giu Tyr Vai Asn Gin Fo Pro Leu Pro Ala Ala Arg Pro Ala Giy Lys Asn Giy Vai Vai Lys A	Giu Thr Asp Gly Tyr Val Ala 14	0
Pro Leu Thr Cys Ser Pro		Pro Asp Val Arg Pro Gln Pro 16	0
Pro Ser Pro Arg Giu Giy		Ala Gly Ala Thr Leu Glu Arg 18	0
Pro Pro Ala Phe Ser Pro	Tyr Leu Thr Pro Gin Giy Giy Ala Phe Asp Asn Leu Tyr Tyr T Thr Phe Lys Giy Thr Pro Thr A 267	Trp asp Gin Asp Pro Pro Glu 24	0

Fig. 11 (SEQ ID NO: 5)

	10	20	
Gin Asn Giu Asp Leu Giy Pro Ak Giu Asp Asp Asp Met Giy Asp Le Phe Phe Cys Pro Asp Pro Ala Pro	u Val Asp Ala Glu Glu 1	Tyr Leu Val Pro Gin Gin Giy	20 40 60

Fig. 12 (SEQ ID NO: 6)

									10										20		
										~									1		
Met	Glu	Lec	ı Alc	Ala	Leu	ı Caa	: Arg	Trp	Gly	Leu	Leu	Lec	a Ala	Leu	ا ا	1 Pro	Pro	Gly	Ala	20	
Alq	Ser	י וטר	- GIA) Val	Lys	ו וחר	. Gly	lhr	Asp	Met	Lvs	Leu	ı Am	le.	, Pcc	Alc	Sec	Pro	Chi	40	
וחר	HIS	Lec	ı ASP	net	Leu	i Arg	HIS	Leu	lyr	Gln	GIV	Cvs	: Gin	Val	Val	Gin	GIV	Asn	I e	60	
Glu	Lec	ılbr	. Iyr	, rec	ו דרכ	וחר	ASN	Alq	Ser	' Leu	Ser	· Phe	: Leu	Gln	Asc) lie	Gin	Glu	Val	80	
GIA	Gly	Tyr	· Val	Leu	ille	Ala	His	Asn	GIn	Val	Arg	Gin	Val	Pro	Leu	ı Gin	Arg	Leu	Arg	100	
									110)									120	•	٠
																			1_		
lle	Val	Arg	Gly	Thr	GIN	Leu	Phe	Glu	Asp	Asn	Tyr	Ala	Leu	Ala	Val	Leu	Asp	Asn	Gly	120	
Asp	Pro	Leu	ASC	A\$N	The	Thr	Pro	Val	Thr	Gly	Ala	Ser	Pro	GIV	GIV	Leu	Ara	Glu	Leu	140	:
Gin	Leu	ı Arg	Sec	Leu	Thr	Glu	lle	Leu	Lys	Gly	Gly	Val	Leu	Ile	Gin	Ara	Asn	Pro	GIn	160	•
Leu	Eys	Tyr	GIN	Asp	Ihr	lle	Leu	Trp	Lys	Asp	Ile	Phe	His	Lys	Asn	Asn	GIn	Leu	Ala	180	
Leu) Inc	Leu	lle	Asp	דטר	Asn	Arg	Ser	Arg	Ala	Cys	His	Pro	Cys	Ser	Pro	Met	Cys	Lys	200	
,	IJ								210)									220		
	ID.					<u> </u>													1		
Gly	Ser	Arg	Cys	Trp	Gly	Glu	Ser	Ser	Glu	Àsp	Cys	Gln	Ser	Leu	Thr	Arg	The	Val	Cys	220	
Ala	©ly	Gly	Cys	Ala	Arg	Cys	Lys	Gly	Pro	Leu	Pro	Thr	Asp	Cys	Cys	His	Glu	Gin	Cvs	240	
Ala	Ala	Gly	Cys	Thr	Gly	Pro	Lys	His	Ser	Asp	Cys	Leu	Ala	Cys	Leu	His	Phe	Asn	His	260	
Ser	'Gly	lle	Cys	Glu	Leu	His	Cys	Pro	Ala	Leu	Val	Thr	Tyr	Asn	Thr	Asp	The	Phe	Glu	280	
Ser	Met	Pro	Asn	Pro	Glu	Gly	Arg	Tyr	Thr	Phe	Gly.	Ala.	Ser	Cys	Val	The	Ala	Cys	Pro	300	
	!! 1 ₹								310										320		
	<u> </u>																				·
Tyr	ASn	Tyr	Leu	Ser	Thr	Asp	Val	Gly	Ser	Cys	Thr	Leu	Val	Cys	Pro	Leu	His	Asn	GIn	320	
Glu	Val	Thr	Ala	Glu	Asp	Gly	Thr	Gin	Arg	Cys	Glu	Lys	Cys	Ser	Lys	Pro	Cys	Ala	Ara	340	
Val	Cys	Tyr	Gly	Leu	Gly	Met	Glu	His	Leu	Arg	Glu	Val	Arg	Ala	Vai	Thr	Ser	Ala	Asn	360	
lle	Gin	Glu	Phe	Ala	Gly	Cys	Lys	Lys	lle	Phe	Gly	Ser	Leu	Ala	Phe	لوں	Pro	Glu	Ser	380	
Phe.	Asp	Gly	Asp	Pro	Ala	Ser	Asn	Thr	Ala	Pro	Leu	GIn	Pro	Glu	Gin	Leu	GIn	Val	Phe	400	
								4	410										420		
Glu	Thr	Leu	Glu	Glu	Ile	Thr	Gly	Tyr	Leu	Tyr	lle	Ser	Ala	Trp	Pro	Asp	Ser	Leu	Pro	420	
Asp	Leu	Ser	Vai	Phe	Gin	Asn	Leu	Gin	Val	lle	Arg	Gly	Arg	lle	Leu	His	Asn	Gl_{Y}	Ala	440	
Tyr :	Ser	Leu	Thr	Leu	Gin	Gly	Leu	Gly	lle	Ser	Trp	Leu	Gly	Leu	Arg	Ser	Leu	Arg	Glu	460	
Leu	Gly	Ser	Gly	Leu	Ala	Leu	lle	His	His	Asn	Thr	His	Leu	Cys	Phe	Val	His	Thr	Val	480	
Pro	ırp	ASP	GIN	Leu	rne	arg	ASN			GIN	Ala	Leu	Leu	His	ואר	Ala	Asn	_		500	
				_					510									:	520		
	` 		<u> </u>		<u> </u>								<u> </u>								
blu i	esp Cu	ulu Par	Cys	Val	Gly The	GIU	Gly I	Leu Val	PIA	Lys	HIS	GIN Ora	Leu :	Lys	Ala	Arg	Gly	HIS	Cys	520	
1FP	GIV.	CIO.	uly Cuc	Pro	1111	GIN Lev	CAZ		ASN A	Lys :	ser A==	GIN .	rne i	Leu	Arg	GIY.	GIN	Liu Li	Cys	540	
101	900	Cuc	Lys L.c	Arg Pro	er.	Crc FEA	uill Clo	uiy l Dea	_eu	770 .	Arg	GIU '	IYC	vai The	ASI	AIQ	Arg	TIS	cys C'	560 500	
Alo i	Λ C C	Cha	Cus	Val		Cys		Hic.	GICL . T., -	1 V C	niy	Der Der	ACI!	Pho	Cys	rne	diy	A	GIU	580 600	• .
~~	∽∍h	3111	C y >	401	AIG.	-y3	AIU	1113	ıyı	Lys .	√>b ⊢	110	1.10		~y≥	ACI	DIA	M G	LYS	600	

Fig. 12 (SEQ ID NO: 6)

	610	620
Pro Ser Gly Val Lys Pro Asp Leu Ser	Tyr Met Pro Ile Trp Lys Phe Pro Asp Glo	Glu 620
Gly Ala Cys Gin Pro Cys Pro Ite Asn	1 Cys Thr His Ser Cys Val Asp Leu Asp Asi	ntvs 640
Gly Cys Pro Ala Glu Gln Arg Ala Ser	Pro Leu Thr Ser Gin Ash Giu Asp Leu Gi	Pro 660
Ala Ser Pro Leu Asp Ser Thr Phe Tyr	Arg Ser Leu Leu Glu Asp Asp Asp Met Gi	/ As p 680
Leu Val Asp Ala Glu Glu lyr Leu Val	Pro Gin Gin Giy Phe Phe Cys Pro Asp Pro	o Ala 700
	710	720
Pro Gly Ala Gly Gly Met Val His His	Arg His Arg Ser Ser Ser Thr Arg Ser Gly	- CI. 700
Giv Aso Leu The Leu Giv Leu Giu Pro	Ser Glu Glu Glu Ala Pro Arg Ser Pro Lei	/ Gly 720 u Ala 740
Pro Ser Glu Gly Ala Gly Ser Aso Val	Phe Asp Gly Asp Leu Gly Met Gly Ala Ala	Lys 760
Giviley Gin Ser Ley Pro Thr His Aso	Pro Ser Pro Leu Gin Arg Tyr Ser Giu Asi	Pro 780
Thrival Pro Leu Pro Ser Glu Thr Asp	Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro	GIn 800
10	810	820
Proficiu Tyr Val Asn Gin Pro Asp Val	Arg Pro Gin Pro Pro Ser Pro Arg Giu Giy	Pro 820
Leuitro Ala Ala Arg Pro Ala Gly Ala	Thr Leu Glu Arg Pro Lys Thr Leu Ser Pro	Gly 840
Lys Asn Gly Val Val Lys Asp Val Phe	Ala Phe Gly Gly Ala Val Glu Asn Pro Glu	Tyr 860
Leuithr Pro Gin Gly Gly Ala Ala Pro	GIn Pro His Pro Pro Pro Ala Phe Ser Pro	Ala 880
Phe Asp Asn Leu Tyr Tyr Trp Asp Gin	Asp Pro Pro Giu Arg Giy Ala Pro Pro Ser	Thr 900
	910	920
Phetys Gly Thr Pro Thr Ala Glu Asn	Pro Glu Tyr Leu Gly Leu Asp Val Pro Val	• 920

	10	20
met Giu Leu Ala Ala Leu Cys Arg Trp	Gly Leu Leu Ala Leu Leu Pro Pro Gly	Ala 20
Ala Ser Thr Gin Val Cys Thr Gly Thr	Asp Met Lys Leu Arg Leu Pro Ala Ser Pro	Glu 40
The His Leu Asp Met Leu Arg His Leu	Tyr Gin Gly Cys Gin Val Val Gin Gly Asn	Leu 60 Val 80
Gly Ley Inc lyr Ley Tie Alo His Ash	Ser Leu Ser Phe Leu Gin Asp Ile Gin Giu Gin Vai Arg Gin Vai Pro Leu Gin Arg Leu	Arg 100
Girl Giy Tyl Yar bed the Ald this All	-	120
	110	1
Ile Val Arg Gly Thr Gin Leu Phe Glu	Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn	Gly 120
Asp Pro Leu Asn Asn Thr Thr Pro Val	Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu	Leu 140
Gin Lou Arg Ser Leu Thr Glu Ile Leu	Lys Gly Gly Val Leu Ile Gin Arg Asn Pro	GIn 160
Leu Cys Tyr Gin Asp Thr Ile Leu Trp	Lys Asp Ile Phe His Lys Ash Ash Gin Leu	Ala 180
Leu Thr Leu Ile Asp Ihr Ash Arg Ser	Arg Ala Cys His Pro Cys Ser Pro Met Cys	
	210	220
Gly Ser Ara Cys Tro Gly Gly Ser Ser	Glu Asp Cys Gin Ser Leu Thr Arg Thr Val	Cys 220
Ala Gly Gly Cys Ala Ara Cys Lys Gly	Pro Leu Pro Thr Asp Cys Cys His Glu Gin	•
	Ser Asp Cys Leu Ala Cys Leu His Phe Asn	
Ser Bly Ile Cys Glu Leu His Cys Pro	Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe	Glu 280
Ser Het Pro Asn Pro Glu Gly Arg Tyr	Thr Phe Gly Ala Ser Cys Val Thr Ala Cys	Pro 300
	310	320
		
Tyr Asn Tyr Leu Ser Thr Asp Val Gly	Ser Cys Thr Leu Val Cys Pro Leu His Asn	Gin 320
	Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala	
Val "Cys lyr Gly Leu Gly Met Glu His	Leu Arg Glu Val Arg Ala Val Thr Ser Ala	
The Gin Giu Phe Ald Gly Cys Lys Lys	Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ala Pro Leu Gln Pro Glu Gln Leu Gln Val	
File asp dry rap 110 and 301 and 111		420
Gluthr Lou Glu Glu Ile Thr Gly Tyr	Leu Tyr Ile Ser Ala Trp Pro Asp Ser Leu	Pro 420
Asaleu Ser Val Phe Gin Asn Leu Gin	Val lie Arg Gly Arg lie Leu His Asn Gly	Ala 440
Tyr Ser Leu Thr Leu Gln Gly Leu Gly	Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg	Glu 460
Leu Gly Ser Gly Leu Ala Leu Ile His	His Asn Thr His Lou Cys Phe Val His Thr	Val 480 Pro 500
Pro Trp Asp Gin Leu Phe Arg Ash Pro	His Gin Ala Leu Leu His Thr Ala Ash Arg	
	510	520
Gly Aso Gly Cys Vol Gly Gly Let	Ala Cys His Gin Leu Cys Ala Arg Giy His	Cys 520
Tro Gly Pro Gly Pro Thr Gin Cys Val	ASN Cys Ser Gin Phe Leu Arg Gly Gin Glu	Cys 540
Val Glu Glu Cys Arg Val Leu Gln Gly	Leu Pro Arg Glu Tyr Val Asn Ala Arg His	Cys 560
Leu Pro Cys His Pro Glu Cys Gln Pro	o Gin Asn Gly Ser Val Thr Cys Phe Gly Pro	Glu 580
Ala Asp Gin Cys Val Ala Cys Ala His	Tyr Lys Asp Pro Pro Phe Cys Val Ala Arg	Cys 600
	610	620
, <u>, , , , , , , , , , , , , , , , , , </u>	610	
Pro Ser Gly Val Lys Pro Asp Leu Ser	Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu	Glu 620
GIV AID CVS GIN Pro Cys Pro Ile Asr	n Cys Thr His Ser Cys Val Asp Leu Asp Asp	Lys 640
CIV CVS Pro Ala Glu Gin Ara Ala Ser	- Pro Leu Thr Ser Gin Asn Glu Asp Leu Gly	Pro bou
Alo Ser Pro Leu Asp Ser Thr Phe Tyr	· Arg Ser Leu Leu Glu Asp Asp Asp Met Gly	ASP DOU
Leu Val Asp Ala Glu Glu Tyr Leu Val	Pro Gin Gin Giy Phe Phe Cys Pro Asp Pro	
	710	720 ·

Fig. 14 (SEQ ID NO: 8)

	10	20
Met Giu Leu Ala Ala Trp Cys Arg Trp Ala Gly Thr Gin Val Cys Thr Gly Thr Thr His Leu Asp Met Leu Arg His Leu Glu Leu Thr Tyr Val Pro Ala Asn Ala Gln Gly Tyr Met Leu IIe Ala His Asn	Asp Met Lys Leu Arg Leu Pro Ala S Tyr Gin Giy Cys Gin Vai Vai Gin G Ser Leu Ser Phe Leu Gin Asp Iie G Gin Vai Lys Arg Vai Pro Leu Gin A	er Pro Glu 40 ly Asn Leu 60 In Glu Val 80 rg Leu Arg 100
Ile Val Arg Gly Thr Gln Leu Phe Glu	Asplys Tyr Alg Leu Alg Vol Leu A	120
Asp Pro Gin Asp Asn Val Ala Ala Ser Leu Gin Leu Arg Ser Leu Thr Giu Ile Gin Leu Cys Tyr Gin Asp Met Val Leu Ala Pro Val Asp Ile Asp Thr Asn Arg	Thr Pro Gly Arg Thr Pro Glu Gly L Leu Lys Gly Gly Val Leu Ile Arg G Trp Lys Asp Val Phe Arg Lys Asn A	eu Arg Glu 140 ly Asn Pro 160 sn Gin Leu 180
Lys Asp Asn His Cys Trp Gly Glu Ser Cys Thr Ser Gly Cys Ala Arg Cys Lys Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Gly Ile Cys Glu Leu His Cys Glu Ser Met His Asn Pro Glu Gly Arg	Gly Arg Leu Pro Thr Asp Cys Cys H His Ser Asp Cys Leu Ala Cys Leu H Pro Ala Leu Val Thr Tyr Asn Thr As	is Glu Gln 240 is Phe Asn 260 sp Thr Phe 280
Pro Tyr Asn Tyr Leu Ser Thr Glu Vai Gla Glu Vai Thr Ala Glu Asp Gly Thr Arg Vai Cys Tyr Gly Leu Gly Met Glu Asa Vai Gin Glu Phe Asp Gly Cys Lys Sel Phe Asp Gly Asp Pro Ser Ser Gly	Gin Arg Cys Giu Lys Cys Ser Lys Pi His Leu Arg Giy Ala Arg Ala Ite Ti Lys Ite Phe Giy Ser Leu Ala Phe Le	ro Cys Ala 340 nr Ser Asp 360 eu Pro Glu 380
Phe Giu Thr Leu Giu Giu Ile Thr Giy Arg Asp Leu Ser Vai Phe Gin Asn Leu Ala Tyr Ser Leu Thr Leu Gin Giy Leu Giu Leu Giy Ser Giy Leu Ala Leu Ile Vai Pro Trp Asp Gin Leu Phe Arg Asn	Arg IIe IIe Arg Gly Arg IIe Leu H Gly IIe His Ser Leu Gly Leu Arg S His Arg Asn Ala His Leu Cys Pne V	is Asp Gly 440 er Leu Arg 460 al His Thr 480
Pro Glu Glu Asp Cys Gly Leu Glu Gly Cys Trp Gly Pro Gly Pro Thr Gln Cys Cys Val Glu Glu Cys Arg Val Trp Lys Cys Leu Pro Cys His Pro Glu Cys Gln Glu Ala Asp Gln Cys Ala Ala Cys Ala	s Val Asn Cys Ser His Phe Leu Arg G s Gly Leu Pro Arg Glu Tyr Val Ser A s Pro Gin Asn Ser Ser Glu Thr Cys P	ily Gin Giu 540 sp Lys Arg 560 he Giy Ser 580
	610	620
Cys Pro Ser Gly Val Lys Pro Asp Leu Glu Gly Ile Cys Gln Pro Cys Pro Ile Arg Gly Cys Pro Ala Glu Gln Arg Ala	Asn Cys Thr His Ser Cys Val Asp Le	ro Asp Glu 620 eu Asp Glu 640

					TTG Leu												48
					AGC Ser												96
					AGT Ser												144
					CAG Gln												192
					AGC Ser 70										GTG Val 80		240
					ATC Ile					Val						`	288
CAG Gln	AGG Arg	CTG Leu	CGG Arg 100	IJе	GTG Val	CGA Arg	GGC Gly	ACC Thr 105	Gln	CTC Leu	TTT Phe	GAG G1u	GAC Asp 110	Asn	TAT Tyr		336
GCC Ala	CTG Leu	GCC Ala 115	Val	CTA Leu	GAC Asp	AAT Asn	GGA Gly 120	GAC Asp	CCG Pro	CTG Leu	AAC Asn	AAT Asn 125	ACC Thr	ACC Thr	CCT Pro		384

	ACA Thr 130															432
	ACA Thr															480
_	TGC Cys															528
	CAG Gln															576
	CCC Pro															624
	GAG Glu 210															<u>6</u> 72
	CGC Arg															720
	GCC Ala															768
CAC His	TTC Phe	AAC Asn	CAC His 260	AGT Ser	GGC Gly	ATC Ile	TGT Cys	GAG Glu 265	CTG Leu	CAC His	TGC Cys	CCA Pro	GCC Ala 270	CTG Leu	GTC Val	816
	TAC Tyr														CGG Arg	864
	ACA Thr 290															912

			GTG Val	Gly												960
			GCA Ala													1008
			CGA Arg 340													1056
GTG Val	AGG Arg	GCA Ala 355	GTT Val	ACC Thr	AGT Ser	GCC Ala	AAT Asn 360	ATC Ile	CAG G1n	GAG G1u	TTT Phe	GCT Ala 365	GGC Gly	TGC Cys	AAG Lys	1104
AAG Lys	ATC Ile 370	TTT Phe	GGG Gly	AGC Ser	CTG Leu	GCA Ala 375	TTT Phe	CTG Leu	CCG Pro	GAG Glu	AGC Ser 380	TTT Phe	GAT Asp	GGG Gly	GAC Asp	1152
			AAC Asn													1200
GAG Glu	ACT Thr	CTG Leu	GAA Glu	GAG Glu 405	ATC Ile	ACA Thr	GGT Gly	TAC Tyr	CTA Leu 410	Tyr	ATC Ile	TCA Ser	GCA Ala	TGG Trp 415	CCG Pro	1248
GAC Asp	AGC Ser	CTG Leu	CCT Pro 420	Asp	CTC Leu	AGC Ser	GTC Val	Phe 425	Glr	AAC Asn	CTG Leu	CAA Gln	GTA Val 430	Ile	CGG Arg	1296
GGA Gly	CGA Arg	ATT 11e 435	Leu	CAC His	AAT Asn	GGC Gly	GCC Ala 440	Tyr	TCG Ser	CTG Leu	ACC Thr	CTG Leu 445	Gin	GGG G1y	CTG Leu	1344
GGC Gly	ATC 11e 450	Ser	TGG Trp	CTG Leu	GGG Gly	Leu 455	ı Arg	Sei	A CT(AGG Arg	G GA/ G G1u 460	ı Lei	GGC Gly	: AGT · Ser	GGA Gly	1392
CTG Leu 465	ı Ala	CTO Leu	ATC Ile	CAC His	CAT His 470	s Asr	ACC Thi	C CA	C CT(C TG(u Cy: 47!	s Pho	C GTO	G CAC His	ACC The	G GTG r Val 480	1440



ATC CT Ile Le	C ATO u II 67	e Ly	G CG/ s Arg	A CGG g Arg	CAG Gln	CAG G1n 680	AAG . Lys	ATC Ile	CGG Arg	AAG Lys	TAC Tyr 685	ACG Thr	ATG Met	CGG Arg	2064
AGA CT Arg Le	u Le	G CA u G1	G GA n Gl	A ACG u Thr	GAG Glu 695	CTG Leu	GTG Val	GAG G1u	CCG Pro	CTG Leu 700	ACA Thr	CCT Pro	AGC Ser	GGA Gly	2112
GCG AT Ala Me 705	G CC et Pr	C AA	C CA	G GCG n Ala 710	Gln	ATG Met	CGG Arg	ATC Ile	CTG Leu 715	AAA Lys	GAG Glu	ACG Thr	GAG G1u	CTG Leu 720	2160
AGG AA Arg Ly	AG GT /s Va	G AA 11 Ly	kG GT vs Va 72	1 Leu	GGA -Gly	TCT Ser	GGC Gly	GCT Ala 730	TTT Phe	GGC Gly	ACA Thr	GTC Val	TAC Tyr 735	AAG Lys	2208
GGC AT	TC TC le Tr	p []	rc cc le Pr 10	T GAT	GGG Gly	GAG G1u	AAT Asn 745	GTG Val	AAA Lys	ATT	CCA Pro	GTG Val 750	GCC Ala	ATC Ile	2256
AAA G Lys V	al Le	rg Ad eu Ar 55	GG GA ng G1	A AA(u Asr	ACA Thr	TCC Ser 760	Pro	AAA Lys	GCC Ala	AAC Asn	Lys 765	GAA G1u	ATC Ile	TTA Leu	2304
GAC G Asp G 7	AA G0 1u A 70	CA TA	AC GT yr Va	TG ATO	G GCT t Ala 775	Gly	GTG Val	GGC G1y	TCC Ser	Pro 780) lyr	GTC Val	TCC Ser	CGC Arg	2352
CTT C Leu L 785	TG G eu G	GC A	TC T(le C	GC CTO ys Le 79	u Thr	TCC Ser	C ACG	GTG Val	G CAG Glr 795	ı Lei	GTG Val	ACA Thr	CAC Glr	CTT Leu 800	2400
ATG C Met F	CC T Pro T	AT G	ly C	GC CT ys Le 05	c TT/ u Le	A GA(u Asi	C CAT p His	GT(S Va 81	1 Arg	GAA G G G T I	A AAC u Asr	CGC n Arg	GG/ G G1: 81:	y Arg	2448
CTG (Leu (GGC T	Ser G	AG G Sin A S20	AC CT sp Le	G CT u Le	G AA u As	C TG(n Tr _l 82	р Су	T AT(G CA	G AT	F GC(2 Ala 83	a Ly	G GGG s Gly	
ATG / Met	Ser 7	TAC (Tyr l B35	CTG 6	AG GA	AT GT	G CG 1 Ar 84	g Le	C GT u Va	A CA	C AG s Ar	G GA g As . 845	p Le	G GC u Al	C GCT a Ala	2544

		C AAA ATT ACA GAC 1 Lys Ile Thr Asp 860	
		A GAG TAC CAT GCA Ir Glu Tyr His Ala 5	, = -
		G GAG TCC ATT CTC ou Glu Ser Ile Leu 895	
 r His Gln Ser		T TAT GGT GTG ACT r Tyr Gly Val Thr 910	
		C GAT GGG ATC CCA r Asp Gly Ile Pro 925	
		G CGG CTG CCC CAG u Arg Leu Pro Gln 940	
		G GTC AAA TGT TGG t Val Lys Cys Trp	
		G TTG GTG TCT-GAA u Leu Val Ser Glu 975	
a Arg Asp Pro		G GTC ATC CAG AAT 11 Val Ile Gln Asn 990	
		CC TTC TAC CGC TCA or Phe Tyr Arg Ser 1005	
	Asp Leu Val As	AT GCT GAG GAG TAT sp Ala Glu Glu Tyr 1020	



GTA CCC CAG CAG GGC Val Pro Gln Gln Gln Gly 1025			
GGC ATG GTC CAC CAC Gly Met Val His His 1045	Arg His Arg Se		Gly
GGG GAC CTG ACA CTA Gly Asp Leu Thr Leu 1060	Gly Leu Glu Pr		
TCT CCA CTG GCA CCC Ser Pro Leu Ala Pro 1075			
GAC CTG GGA ATG GGG Asp Leu Gly Met Gly 1090		Leu Pro Thr	
GAC CCC AGC CCT CTA Asp Pro Ser Pro Leu 1105			
CCC TCT GAG ACT GAT Pro Ser Glu Thr Asp 1125	Gly Tyr Val Al		Gln
CCT GAA TAT GTG AAC Pro Glu Tyr Val Asn 1140	Gln Pro Asp Va		
CGA GAG GGC CCT CTG Arg Glu Gly Pro Leu 1155			
AGG CCC AAG ACT CTC Arg Pro Lys Thr Leu 1170		Val Lys Asp	
TTT GCC TTT GGG GGT Phe Ala Phe Gly Gly 1185			

				Pro	Gln			Pro	Pro					Ala	3648
				1205	5			1210)			•	1215	5	
_													GGG Gly		3696
	. ~ •		1220		• •	ľ		5				1230			
													GAG		3744
Pro	Pro	1235		Pne	Lys	ыу	1240	HH.	Ald	Giu	1245		Glu	ı yı	
-				GTG			TGA								3768
Leu	Gly 1250		Asp	Val	Pro	Val 1255	5								

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1901 Badesdarda deerackada escridaces damasarch rockhanas chasa damasarch rockhanas chasa deeracada damasarch rockhanas chasa deeracada damasarch rockhanas damasarch serial damasarch control damasarch deeracada deeracada damasarch damas

Herceptin Binding by Direct Elisa 10/5/99

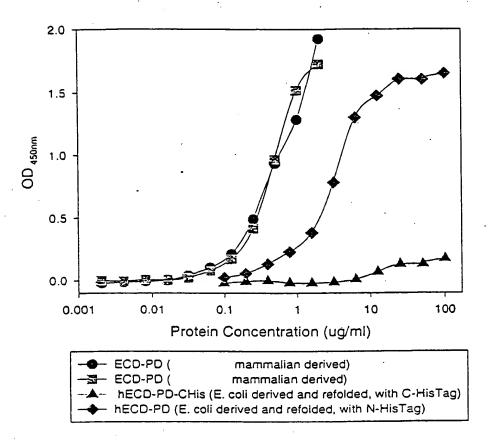
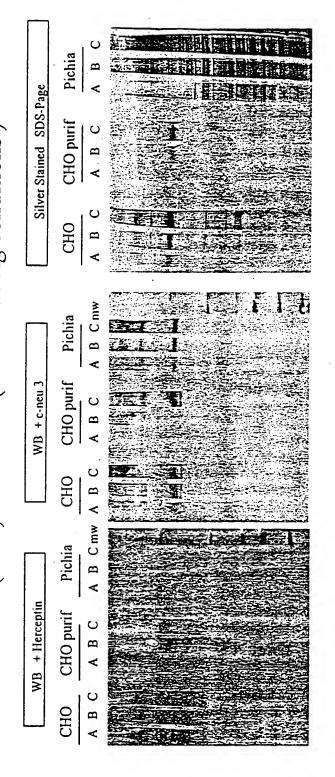


Fig. 17

Comparaison of Her2neu ECD-PD Expression in CHO-K1 (S/SF) and Pichia (Non reducing conditions)



Legend: CHO, A, B, C = 2,5µl / 5µl / 10µl

CHO purif; A, B, C = 125ng / 250ng / 500ng

Pichia; A, B, C = $2,5\mu$ l / 5μ l / 10μ l from a 1/30 dilution of OD 120

Fig. 19 (SEQ ID NO:11)

		•				
atggagctgg	cggcctggtg	ccgttggggg	ttcctcctcg	ccctcctgtc	ccccggagcc	60
				gactccctgc		120
acccacctgg	acatgcttcg	ccacctctac	cagggctgtc	aggtggtgca	gggcaatttg	180
gagcttacct	acctgcccgc	caatgccagc	ctctcattcc	tgcaggacat	ccaggaagtc	240
cagggataca	tgctcatcgc	tcacaaccga	gtgaaacacg	tcccactgca	gaggttgcgc	300
atcgtgagag	ggactcagct	ctttgaggac	aagtatgccc	tggctgtgct	agacaaccga	360
gaccctttgg	acaacgtcac	caccgccgcc	ccaggcagaa	ccccagaagg	gctgcgggag	420
ctgcagcttc	gaagtctcac	agagatcttg	aagggaggag	ttttgatccg	tgggaaccct	480
cagctctgct	accaggacat	ggttttgtgg	aaggatgtcc	tccgtaagaa	taaccagctg	540
gctcctgtcg	acatggacac	caatcgttcc	cgggcctgtc	caccttgtgc	cccaacctgc	600
aaagacaatc	actgttgggg	tgagagtcct	gaagactgtc	agatcttgac	tggcaccatc	660
tgtactagtg	gctgtgcccg	gtgcaagggc	cggctgccca	ctgactgttg	ccatgagcag	720
tgtgctgcag	gctgcacggg	tcccaagcat	tctgactgcc	tggcctgcct	ccacttcaat	780
catagtggta	tctgtgagct	gcactgcccg	gccctcatca	cctacaacac	agacaccttc	840
gagtccatgc	tcaaccctga	gggtcgctac	acctttggtg	ccagctgtgt	gaccacctgc	900
ccctacaact	acctctccac	ggaagtggga	tcctgcactc	tggtctgtcc	cccgaacaac	960
caagaggtca	cagctgagga	cggaacacag	cggtgtgaga	aatgcagcaa	gccctgtgct	1020
ggagtatgct	atggtctggg	catggagcac	ctccgagggg	cgagggccat	caccagtgac	1080
aatatccagg	agtttgctgg	ctgcaagaag	atctttggga	gcctggcatt	tttgccggag	1140
agctttgatg	ggaacccctc	ctccggcgtt	gccccactga	agccagagca	tctccaagtg	1200
ttcgaaaccc	tggaggagat	cacaggttac	ctatacattt	cagcatggcc	agagagette	1260
caagacctca	gtgtcttcca	gaaccttcgg	gtcattcggg	gacggattct	ccatgatggt	1320
gcttactcat	tgacgttgca	aggcctgggg	attcactcac	tggggctacg	ctcactgcgg	1380
gagctgggca	gtggattggc	tctcattcac	cgcaacaccc	atctctgctt	tgtaaacact	1440
gtaccttggg	accagctctt	ccggaacccg	caccaggccc	tactccacag	tgggaaccgg	1500
ccagaagagg	catgtggtct	tgagggcttg	gtctgtaact	cactgtgtgc	ccgtgggcac	1560
tgctgggggc	cagggcccac	ccagtgtgtc	aactgcagtc	agttcctccg	gggccaggag	1620
tgtgtggagg	agtgccgagt	atggaagggg	ctccccaggg	agtatgtgag	gggcaagcac	1680
tgtctgccat	gccaccccga	gtgtcagcct	caaaacagct	cggagacctg	ctatggateg	1740
gaggctgacc	agtgtgaggc	ttgtgcccac	tacaaggact	catcttcctg	tgtggetege	1800
tgccccagtg	gtgtgaagcc	agacctctcc	tacatgccta	tctggaagta	cccggatgag	1860 1920
gagggcatat	gtcagccatg	ccccatcaac	tgcacccact	catgtgtgga	cctggacgaa	1980
cgaggctgcc	cagcagagca	gagagccagc	ccagtgacat	tcatcattgc	aactgtggtg	2040
ggcgtcctgt	tgttcctgat	catagtggtg	gtcattggaa	tcctaatcaa	acgaaggcga	2100
cagaagatcc	ggaagtatac	catgcgtagg	ctgctgcagg	agaccgagct	ggcggagccg	2160
ctgacgccca	gtggagctgt	gcccaaccag	geteagatge	ggatcctaaa	ggagatagag	2220
ctaaggaagc	tgaaggtgct	tgggtcagga	geetteggea	ctgtctacaa	gggcaccegg	2280
atcccagatg	gggagaacgt	gaaaatcccc	gtggeeatea	aggtgttgag	tataaattat	2340
tctcctaaag	ctaacaaaga	aatcctagat	gaagegracg	tcatggctgg	cgtgggttet	2400
ccatatgtgt	ecegeeceec	totogo	atecasass	cagtgcagct	cttaggctcc	2460
cttatgccct	acggergeer	tettesest	gcccgagaac	accgaggtcg tgagctacct	ggaggaagtt	2520
caggacctgc	acaggaget	agetgeegaee	aacatactaa	tcaagagtcc	caaccacgtc	2580
eggettgett	acaygyacct	ageegeeega	ctggagattg	atgagactga	ataccatgca	2640
aagattaccg	accedggee	caactggetg	gcattggaat	ctattctcag	acgccggttc	2700
gatgggggca	aggigeeeat	gagetatogt	gtaactatat	gggagctgat	gacctttggg	2760
acceatcaga	accatoccat	cccaactcaa	gagatocctq	atttqctqqa	gaaggagaa	2820
gecaaacete	acgatgggat	ctccaccatc	gacgictaca	tgatcatggt	caaatgttgg	2880
atrattract	ccgaatgtcg	cccgagatto	caagaattaa	tatcagaatt	ctcccgtatg	2940
acgaccyacc	cccagcgctt	tataatcata	cagaacdadd	acttaggccc	ctccagcccc	3000
atacacaca	cottotacce	ttcactocto	gaggatgatg	acatgggga	gctggtcgat	3060
actgacagea	acctestace	ccagcaggga	ttettetee	cagaccctgc	cctaggtact	3120
accaccacac	ccaccaca	acaccocado	tegteggeea	ggagtggcgg	tggtgagctg	3180
acactogge	tagaaccete	ggaagaagag	cccccagat	ctccactggc	tccctccgaa	3240
gaactaact	ccgatgtgtt	tgatggtgag	ctagcagtag	gggtaaccaa	aggactgcag	3300
agcotototo	cacatgacct	cageceteta	cagoggtaca	gtgaggatcc	cacattacct	3360
45000000			- 3 33			

Fig. 19 (SEQ ID NO:11)

ctgccccccg	agactgatgg	ctacgttgct	cccctggcct	gcagccccca	gcccgagtat	3420
gtgaaccagc	cagaggttcg	gcctcagtct	cccttgaccc	cagagggtcc	teegeeteee	3480
atccgacctg	ctggtgctac	tctagaaaga	cccaagactc	tctctcctgg	gaaaaatggg	3540
gttgtcaaag	acgtttttgc	ctttgggggt	gctgtggaga	accctgaata	cctagcaccc	3600
agagcaggca	ctgcctctca	gccccaccct	tctcctgcct	tcagcccagc	ctttgacaac	3660
ctctattact	gggaccagaa	ctcatcggag	cagggtcctc	caccaagtac	ctttgaaggg	3720
acccccactg	cagagaaccc	tgagtaccta	ggcctggatg	tgccagtatg	a	3771

Fig. 20 (SEQ ID NO:14)

1					5					10		•			eu L 15	
				20					25					30	Met	
Lev	ı Ar		Leu 35	Pro	Ala	Ser	Pro	Glu 40	Thr	His	Leu	Asp	Met 45	Leu	Arg	His
Lev	1 Ty 50	r	Gln	Gly	Cys	Gln	Val 55	Val	Gln	Gly	Asn	Leu 60	Glu	Leu	Thr	Tyr
Let 65	ı Pr	0	Ala	Asn	Ala	Ser 70	Leu	Ser	Phe	Leu	Gln 75	Asp	Ile	Gln	Glu	Val 80
Glr	n Gl	У	Tyr	Met	Leu 85	Ile	Ala	His	Asn	Arg 90	Val	Lys	His	Val	Pro 95	Leu
Gli	n Ar	g	Leu	Arg 100	Ile	Val	Arg	Gly	Thr 105	Gln	Leu	Phe	Glu	Asp 110	Lys	Tyr
			115					120					125		Thr	
	13	0					135					140			Leu	
14	5					150					155				Asn	160
Gl	n Le				165					170					Arg 175	
				180					185					190	Arg	
-			195					200					205		Gly	
	21	LO-			•		215					220			Ser	
22	5					230					235					Gln 240
					245					250				-	Ala 255	
				260			,		265					270	Ala	•
			275					280					285		Glu	
	2:	90					295	i				300			Asn -	
30	5					310					315					Asn 320
					325					330	1				335	Ser
				340					345	;				350		Arg
	-		355					360)				365			Cys
	3	70					375	5				380				Gly
3.8	5					390	1				395					Val 400
					405	i				410)				415	
Pr	:0 G	1u	Ser	Phe	Glr	Asp	Let	ı Sei	r Val	Phe	GIR	AST	. Leu	AEG	val	Ile

Fig. 20 (SEQ ID NO:14)

			420					425					430		
Arg	Gly	Arg		Leu	His	Asp	Gly		Tyr	Ser	Leu	Thr 445		Gln	Gly
Leu	Gly 450	Ile	His	Ser	Leu	Gly 455	Leu	Arg	Ser	Leu	Arg 460	Glu	Leu	Gly	Ser
465					His 470					475					480
				485	Leu				490					495	
			500		Glu			505					510		
		515		•	Arg		520					525			
	530				Gln	535	•				540				
545					Gly 550			•		555					560
_				565	Pro				570				•	575	
_			580		Ala Val			585					590		
_		595			Ile		600					605			
	610					615					620				Glu
625					630 Glu					635					640
_	-			645	Val				650					655	
			660		Arg			665					670		
		675					680			•		685			Ser
_	690					695					700				Glu
705			•		710					715	-				720 T yr
		_		725	Pro				730					735	
-	_		740					745					750		Ile
Leu	Asp	755 Glu		Tyr	Val	Met	760 Ala		Val	Gly				Val	Ser
Arg	770 Leu	Leu	Gly	Ile	Cys	775 Leu		Ser	Thr				Val	Thr	Gln
785 Leu	Met	Pro	Tyr				Leu	Asp				Glu	His	Arg	800 Gly
Arg	Leu	Gly				Leu	Leu				Val	Gln		815 Ala	Lys
Gly	Met				Glu	Glu				Val	His			Leu	Ala
Ala	_			Leu	Val				Asn	His	Val 860			Thr	Asp
Phe 865			Ala	Arg	Leu 870			Ile	Asp	Glu 875	Thr		Tyr	His	Ala 880
J 3 3										•					

Fig. 20 (SEQ ID NO:14)

Aca Cly Cly												
Asp Gry Gry	Lys Va		Ile	Lys	Trp	Met	Ala	Leu	Glu	Ser	Ile	Leu
A	88	-				890					895	
Arg Arg Arg		r His	Gln	Ser		Val	Trp	Ser	Tyr		Val	Thr
	900	,			905		_	_	_	910		_
Val Trp Glu		t Thr	Phe	_	Ala	Lys	Pro	Tyr			Ile	Pro
915		_	_	920		_			925		_	
Ala Arg Glu	lie Pr	o Asp		Leu	Glu	Lys	GIA		Arg	Leu	Pro	Gin
930	~ mb	. Tl.	935	*** 1		1 4 - 5	71 -	940	11-7	T	~	m
Pro Pro Ile	Cys In		Asp	vai	Tyr	Met		Met	Val	гÀг	Cys	
945	Com (C)	950	3	D	N	Dh.	955	<i>c</i> 1	T 011	tta 1	C	960
Met Ile Asp	96		Arg	Pro	Arg	970	Arg	GIU	Leu	. Val	975	GIU
Phe Ser Arg		_	A cm	Dro	Gln		Dhe	Val	17 = 1	Tla		Acn
File Ser Arg	980	a Aig	ASD	PIO	985	Arg	FIIC	Vai	VAI	990	GIII	N311
Glu Asp Leu		o Ser	Ser	Pro		Acn	Ser	Thr	Dhe		Δτα	Ser
995	017 11	0 001	001	1000		rop.	501	****	1009		3	0,01
Leu Leu Glu	Asp As	D Asp	Met			Leu	Val	Asp			Glu	Tvr
1010		<i>-</i>	1019					1020				-4-
Leu Val Pro	Gln Gl	n Gly	Phe	Phe	Ser	Pro	Asp	Pro	Ala	Leu	Gly	Thr
1025		103					1035				_	1040
Gly Ser Thr	Ala Hi	s Arg	Arg	His	Arg	Ser	Ser	Ser	Ala	Arg	Ser	Gly
		45				1050					1055	
Gly Gly Glu		r Leu	Gly	Leu	Glu	Pro	Ser	Glu	Glu			Pro
	1060			_	1069		_			1070		•
Ara Ser Dro	Leu Al	a Pro	Ser	Glu	Glv	Δla	GIV	SAT	Aen	17 a 1	Dha	A cr
Arg Ser Pro		<u> </u>			-						PHE	vab
107	5			1080) ~				1089	5		_
107 Gly Asp Leu	5		Val	1080 Thr) ~			Gln	1089 Ser	5		_
107: Gly Asp Leu 1090	5 Ala Va	l Gly	Val 1099	1080 Thr	Lys	Gly	Leu	Gln 1100	1089 Ser	Leu	Ser	Pro
107 Gly Asp Leu 1090 His Asp Leu	5 Ala Va	l Gly o Leu	Val 1099 Gln	1080 Thr	Lys	Gly	Leu Glu	Gln 1100 Asp	1089 Ser	Leu	Ser	Pro Pro
107 Gly Asp Leu 1090 His Asp Leu 1105	5 Ala Va Ser Pr	l Gly o Leu 1110	Val 1099 Gln	1080 Thr Arg	Lys Tyr	Gly Ser	Leu Glu 1115	Gln 1100 Asp	Ser) Pro	Leu Thr	Ser Leu	Pro Pro 1120
107 Gly Asp Leu 1090 His Asp Leu	5 Ala Va Ser Pr Glu Th	l Gly o Leu 1110 r Asp	Val 1099 Gln	1080 Thr Arg	Lys Tyr Val	Gly Ser Ala	Leu Glu 1115 Pro	Gln 1100 Asp	Ser) Pro	Leu Thr	Ser Leu Ser	Pro Pro 1120 Pro
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro	5 Ala Va Ser Pr Glu Th 11	l Gly o Leu 1110 r Asp 25	Val 1099 Gln O Gly	1080 Thr Arg	Lys Tyr Val	Gly Ser Ala	Leu Glu 1115 Pro	Gln 1100 Asp Leu	Ser Pro	Leu Thr Cys	Ser Leu Ser 1135	Pro Pro 1120 Pro
107 Gly Asp Leu 1090 His Asp Leu 1105	5 Ala Va Ser Pr Glu Th 11	l Gly o Leu 1110 r Asp 25	Val 1099 Gln O Gly	1080 Thr Arg	Lys Tyr Val Glu	Gly Ser Ala 1130 Val	Leu Glu 1115 Pro	Gln 1100 Asp Leu	Ser Pro	Leu Thr Cys	Ser Leu Ser 1135 Pro	Pro Pro 1120 Pro
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu	Ser Pr Glu Th 11 Tyr Va 1140	l Gly o Leu 1110 r Asp 25 l Asn	Val 1099 Gln O Gly Gln	1080 Thr Arg Tyr	Lys Tyr Val Glu 1145	Gly Ser Ala 1130 Val	Leu Glu 1119 Pro Arg	Gln 1100 Asp Leu Pro	Ser Pro Ala	Leu Thr Cys Ser	Ser Leu Ser 1135 Pro	Pro Pro 1120 Pro Leu
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr	l Gly o Leu 1110 r Asp 25 l Asn	Val 1099 Gln O Gly Gln	1080 Thr Arg Tyr	Lys Tyr Val Glu 1145	Gly Ser Ala 1130 Val	Leu Glu 1119 Pro Arg	Gln 1100 Asp Leu Pro	Ser Pro Ala	Leu Thr Cys Ser 1150	Ser Leu Ser 1135 Pro	Pro Pro 1120 Pro Leu
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr	l Gly o Leu 1110 r Asp 25 l Asn	Val 1099 Gln Gly Gln Pro	Thr Arg Tyr Pro	Lys Tyr Val Glu 1145 Ile	Gly Ser Ala 1130 Val Arg	Leu Glu 1115 Pro Arg	Gln 1100 Asp Leu Pro	1089 Ser Pro Ala Gln Gly 1169	Leu Thr Cys Ser 1150 Ala	Ser Leu Ser 1133 Pro	Pro Pro 1120 Pro Leu Leu
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu 115 Glu Arg Pro 1170	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr 5 Lys Th	l Gly o Leu 1110 r Asp 25 l Asn o Pro	Val 1099 Gln Gly Gln Pro Ser 1179	Thr Arg Tyr Pro Pro 1160 Pro	Lys Tyr Val Glu 1145 Ile	Gly Ser Ala 1130 Val Arg Lys	Leu Glu 1119 Pro Arg Pro	Gln 1100 Asp Leu Pro Ala Gly 1180	1089 Ser Pro Ala Gln Gly 1169 Val	Leu Thr Cys Ser 1150 Ala Val	Ser Leu Ser 1133 Pro Thr	Pro 1120 Pro Leu Leu Asp
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115 Glu Arg Pro	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr 5 Lys Th	l Gly o Leu 1110 r Asp 25 l Asn o Pro	Val 1099 Gln Gly Gln Pro Ser 1179	Thr Arg Tyr Pro Pro 1160 Pro	Lys Tyr Val Glu 1145 Ile	Gly Ser Ala 1130 Val Arg Lys	Leu Glu 1119 Pro Arg Pro	Gln 1100 Asp Leu Pro Ala Gly 1180	1089 Ser Pro Ala Gln Gly 1169 Val	Leu Thr Cys Ser 1150 Ala Val	Ser Leu Ser 1133 Pro Thr	Pro 1120 Pro Leu Leu Asp
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala 1185	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr Lys Th	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly 1190	Val 1099 Gln Gly Gln Pro Ser 1179 Ala	Thr Arg Tyr Pro Pro 1160 Pro Val	Lys Tyr Val Glu 1145 Ile Gly Glu	Gly Ser Ala 1130 Val Arg Lys Asn	Leu Glu 1115 Pro Arg Pro Asn Pro 1195	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu	1085 Ser Pro Ala Gln Gly 1165 Val	Leu Thr Cys Ser 1150 Ala Val	Ser Leu Ser 1135 Pro Thr Lys	Pro Pro 1120 Pro Leu Leu Asp Pro 1200
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr Lys Th Phe Gl	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly 1190 a Ser	Val 1099 Gln Gly Gln Pro Ser 1179 Ala	Thr Arg Tyr Pro Pro 1160 Pro Val	Lys Tyr Val Glu 1145 Ile Gly Glu	Gly Ser Ala 1130 Val Arg Lys Asn Pro	Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu	1085 Ser Pro Ala Gln Gly 1165 Val	Leu Thr Cys Ser 1150 Ala Val	Ser Leu Ser 1135 Pro Thr Lys Ala Ser	Pro Pro 1120 Pro Leu Leu Asp Pro 1200 Pro
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala 1185 Arg Ala Gly	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr Lys Th Phe Gl Thr Al 12	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly 1190 a Ser 05	Val 1099 Gln Gly Gln Pro Ser 1179 Ala	Thr Arg Tyr Pro Pro 1160 Pro Val	Lys Tyr Val Glu 1145 Ile Gly Glu His	Gly Ser Ala 1130 Val Arg Lys Asn Pro 1210	Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu Pro	1085 Ser Pro Ala Gln Gly 1165 Val Tyr	Leu Thr Cys Ser 1150 Ala Val Leu Phe	Ser Leu Ser 1135 Pro Thr Lys Ala Ser 1215	Pro Pro 1120 Pro Leu Leu Asp Pro 1200 Pro
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala 1185	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr Lys Th Phe Gl Thr Al 12 Asn Le	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly 1190 a Ser 05	Val 1099 Gln Gly Gln Pro Ser 1179 Ala Gln Tyr	Thr Arg Tyr Pro Pro 1160 Pro Val Pro Trp	Lys Tyr Val Glu 1145 Ile Gly Glu His	Gly Ser Ala 1130 Val Arg Lys Asn Pro 1210 Gln	Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu Pro	1085 Ser Pro Ala Gln Gly 1165 Val Tyr	Leu Thr Cys Ser 1150 Ala Val Leu Phe Glu	Ser Leu Ser 1135 Pro Thr Lys Ala Ser 1215 Gln	Pro Pro 1120 Pro Leu Leu Asp Pro 1200 Pro
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala 1185 Arg Ala Gly Ala Phe Asp	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr Lys Th Phe Gl Thr Al 12 Asn Le 1220	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly 1190 a Ser 05	Val 1099 Gln Gly Gln Pro Ser 1179 Ala Gln Tyr	Thr Arg Tyr Pro Pro 1160 Pro Val Pro Trp	Lys Tyr Val Glu 1145 Ile Gly Glu His Asp	Gly Ser Ala 1130 Val Arg Lys Asn Pro 1210 Gln	Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu Pro Ser	1089 Ser Pro Ala Gln Gly 1169 Val Tyr Ala Ser	Leu Thr Cys Ser 1150 Ala Val Leu Phe Glu 1230	Ser Leu Ser 1135 Pro Thr Lys Ala Ser 1215 Gln	Pro Pro 1120 Pro Leu Leu Asp Pro 1200 Pro Gly
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala 1185 Arg Ala Gly Ala Phe Asp	Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr Lys Th Phe Gl Thr Al 12 Asn Le 1220 Ser Th	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly a Ser 05 u Tyr	Val 1099 Gln Gly Gln Pro Ser 1179 Ala Cln Tyr	Thr Arg Tyr Pro Pro 1160 Pro Val Pro Trp Gly	Lys Tyr Val Glu 1145 Ile Gly Glu His Asp 1225 Thr	Gly Ser Ala 1130 Val Arg Lys Asn Pro 1210 Gln Pro	Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu Pro Ser Ala	1089 Ser Pro Ala Gln Gly 1169 Val Tyr Ala Ser Glu	Leu Thr Cys Ser 1150 Ala Val Leu Phe Glu 1230 Asn	Ser Leu Ser 1135 Pro Thr Lys Ala Ser 1215 Gln	Pro Pro 1120 Pro Leu Leu Asp Pro 1200 Pro Gly
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala 1185 Arg Ala Gly Ala Phe Asp Pro Pro Pro 123	Ser Pr Glu Th 1140 Gly Pr Lys Th Phe Gl Thr Al 120 Asn Le 1220 Ser Th	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly a Ser 05 u Tyr	Val 1099 Gln Gly Gln Pro Ser 1179 Ala Gln Tyr	Thr Arg Tyr Pro Pro 1160 Pro Val Pro Trp Gly 1240	Lys Tyr Val Glu 1145 Ile Gly Glu His Asp 1225 Thr	Gly Ser Ala 1130 Val Arg Lys Asn Pro 1210 Gln	Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu Pro Ser Ala	1089 Ser Pro Ala Gln Gly 1169 Val Tyr Ala Ser	Leu Thr Cys Ser 1150 Ala Val Leu Phe Glu 1230 Asn	Ser Leu Ser 1135 Pro Thr Lys Ala Ser 1215 Gln	Pro Pro 1120 Pro Leu Leu Asp Pro 1200 Pro Gly
107 Gly Asp Leu 1090 His Asp Leu 1105 Leu Pro Pro Gln Pro Glu Thr Pro Glu 115 Glu Arg Pro 1170 Val Phe Ala 1185 Arg Ala Gly Ala Phe Asp	Ser Pr Glu Th 1140 Gly Pr Lys Th Phe Gl Thr Al 120 Asn Le 1220 Ser Th	1 Gly O Leu 1110 r Asp 25 l Asn O Pro r Leu y Gly a Ser 05 u Tyr	Val 1099 Gln Gly Gln Pro Ser 1179 Ala Gln Tyr Glu	Thr Arg Tyr Pro Pro 1160 Pro Val Pro Gly 1240 Val	Lys Tyr Val Glu 1145 Ile Gly Glu His Asp 1225 Thr	Gly Ser Ala 1130 Val Arg Lys Asn Pro 1210 Gln Pro	Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Gln 1100 Asp Leu Pro Ala Gly 1180 Glu Pro Ser Ala	1089 Ser Pro Ala Gln Gly 1169 Val Tyr Ala Ser Glu	Leu Thr Cys Ser 1150 Ala Val Leu Phe Glu 1230 Asn	Ser Leu Ser 1135 Pro Thr Lys Ala Ser 1215 Gln	Pro Pro 1120 Pro Leu Leu Asp Pro 1200 Pro Gly